

Finals Lab Task 7.
MySQL CRUD Operations in Python Using GUI Tkinter

Step 1. Make sure you install the necessary prerequisites:

- a. **MySQL-Connector** in Pycharm
- b. Activate xampp (Apache and Mysql)
- c. Create a database named: cars
- d. Import the sql file (cars.sql) to load the tables and records

Step 2. See the GUI Design of the Demo interface



ID	Model	Year	Color	EngineCapacity	EnginePower	EngineType	Transmission	Price
1	BMW X3	2022	Black	3000	250	Petrol	A	50000.00
2	BMW 3 Series	2021	White	2000	250	Diesel	M	40000.00
3	BMW M5	2023	Blue	4000	600	Petrol	A	80000.00
4	BMW 5 Series	2022	Silver	2500	300	Diesel	A	45000.00
5	BMW X3	2023	Black	2000	240	Petrol	A	38000.00
6	BMW 7 Series	2021	White	3500	400	Diesel	M	65000.00
7	BMW X1	2022	Blue	1800	200	Petrol	A	32000.00
8	BMW 4 Series	2023	Red	3000	250	Petrol	A	48000.00
9	BMW X6	2022	Black	4000	500	Diesel	M	75000.00
10	BMW i3	2021	Silver	1500	170	Electric	A	35000.00
11	BMW M4	2023	Blue	3000	450	Petrol	M	62000.00
12	BMW X2	2022	White	2000	230	Diesel	A	36000.00
13	BMW 8 Series	2023	Black	4400	600	Petrol	A	95000.00
14	BMW iX7	2022	Silver	4500	550	Diesel	A	85000.00
15	BMW 2 Series	2023	Black	1800	200	Petrol	M	32000.00
16	BMW M2	2021	White	3000	365	Petrol	A	54000.00
17	BMW X4	2022	Blue	2000	240	Diesel	A	47000.00
18	BMW 6 Series	2023	Red	3500	420	Petrol	M	69000.00
19	BMW i8	2022	Black	1500	170	Electric	A	75000.00
21	BMW X8	2022	White	3800	400	Diesel	M	68000.00
22	BMW 4 Series	2023	Black	2500	320	Petrol	A	49000.00
23	BMW X3	2022	Blue	2800	240	Petrol	A	39000.00
24	BMW M3	2021	Red	3000	450	Petrol	M	62000.00
25	BMW X2	2022	White	2000	230	Diesel	A	36000.00
26	BMW 7 Series	2023	Black	4000	500	Diesel	M	77000.00
27	BMW i3	2022	Silver	1500	170	Electric	A	35000.00
28	BMW X5	2021	Blue	3000	250	Petrol	A	52000.00
29	BMW 3 Series	2023	Red	2000	230	Diesel	M	41000.00

Step 3. Try the code below:

Get the copy of the following files and load in pycharm:

Link here:

https://drive.google.com/drive/folders/1e6Eh55qLAwepf0A_I8GKh70elW6jAxJj?usp=sharing

1. connectDb.py
2. main.py
3. window.py

Step 4. Run the program main.py (and test all the functions (CRUD)) it should be free from errors.

Make a screenshot of your output as proof that you were able to configure the program properly

Step 5. Add the ff: Functions in the GUI. Choose 1 only

1. Insert a Label and Text widget below the reload button that will display the

- ff: infos: a. *the total Number of Records,*
b. *Car Model with the Highest Price,*
c. *Total Number of Manual*
d. *Total number of and Automatic Cars*

Chosen is C

OUTPUT:

CRUD PYTHON MYSQL - BMWCars									
ID	Model	Year	Color	EngineCapacity	EnginePower	EngineType	Transmission	Price	
1	BMW X5	2022	Black	3000	350	Petrol	A	50000.00	
2	BMW 3 Series	2021	White	2000	250	Diesel	M	40000.00	
3	BMW M5	2023	Blue	4000	600	Petrol	A	80000.00	
4	BMW 5 Series	2022	Silver	2500	300	Diesel	A	45000.00	
5	BMW X3	2023	Black	2000	240	Petrol	A	38000.00	
6	BMW 7 Series	2021	White	3500	400	Diesel	M	65000.00	
7	BMW X1	2022	Blue	1800	200	Petrol	A	32000.00	
8	BMW 4 Series	2023	Red	3000	350	Petrol	A	48000.00	
9	BMW X6	2022	Black	4000	500	Diesel	M	75000.00	
10	BMW i3	2021	Silver	1500	170	Electric	A	35000.00	
11	BMW M4	2023	Blue	3000	450	Petrol	M	62000.00	
12	BMW X2	2022	White	2000	230	Diesel	A	36000.00	
13	BMW 8 Series	2023	Black	4400	600	Petrol	A	95000.00	
14	BMW X7	2022	Silver	4500	550	Diesel	A	85000.00	
15	BMW 2 Series	2023	Black	1800	200	Petrol	M	52000.00	
16	BMW M2	2021	White	3000	365	Petrol	A	54000.00	
17	BMW X4	2022	Blue	2900	240	Diesel	A	41000.00	
18	BMW 6 Series	2023	Red	3500	420	Petrol	M	69000.00	
19	BMW i8	2022	Black	1500	170	Electric	A	75000.00	
20	BMW X6	2022	White	3000	400	Diesel	M	68000.00	
21	BMW 4 Series	2023	Black	2500	320	Petrol	A	49000.00	
22	BMW X5	2022	Blue	2900	240	Petrol	A	59000.00	
23	BMW M4	2021	Red	3000	450	Petrol	M	63000.00	
24	BMW X2	2022	White	2000	230	Diesel	A	36000.00	
25	BMW 7 Series	2023	Black	4000	500	Diesel	M	77000.00	
26	BMW i3	2022	Silver	1500	170	Electric	A	35000.00	
27	BMW X5	2021	Blue	3000	350	Petrol	A	52000.00	
28	BMW 3 Series	2023	Red	2000	250	Diesel	M	41000.00	
29	BMW M5	2022	White	4000	600	Petrol	A	82000.00	

Function in Action

CRUD PYTHON MYSQL - BMWCars

i Manual Cars Count: X
i Total number of manual transmission cars: 11 OK

ID	Model	Year	Color	EngineCapacity	EnginePower	Enginetype	Transmission	Price
1	BMW X5	2022	Black	3000	250	Petrol	A	50000.00
2	BMW 3 Series	2021	White	2000	250	Diesel	M	40000.00
3	BMW M5	2023	Blue	4000	600	Petrol	A	80000.00
4	BMW 5 Series	2022	Silver	2500	300	Diesel	A	45000.00
5	BMW X3	2023	Black	2000	240	Petrol	A	38000.00
6	BMW 7 Series	2021	White	2500	400	Diesel	M	65000.00
7	BMW X1	2022	Blue	1800	200	Petrol	A	32000.00
8	BMW 4 Series	2023	Red	3000	250	Petrol	A	48000.00
9	BMW X6	2022	Black	4000	500	Diesel	M	75000.00
10	BMW i3	2021	Silver	1500	170	Electric	A	35000.00
11	BMW M4				450	Petrol	M	62000.00
12	BMW X2				230	Diesel	A	36000.00
13	BMW 8 Series				600	Petrol	A	95000.00
14	BMW X7				550	Diesel	A	85000.00
15	BMW 2 Series				200	Petrol	M	32000.00
16	BMW M2				385	Petrol	A	54000.00
17	BMW X4				240	Diesel	A	41000.00
18	BMW 6 Series				420	Petrol	M	69000.00
19	BMW i8	2022	Black	1500	170	Electric	A	75000.00
20	BMW X5	2022	White	3000	400	Diesel	M	68000.00
21	BMW 4 Series	2023	Black	2500	320	Petrol	A	49000.00
22	BMW X3	2022	Blue	2000	240	Petrol	A	39000.00
23	BMW M4	2021	Red	3000	450	Petrol	M	63000.00
24	BMW X2	2022	White	2000	230	Diesel	A	36000.00
25	BMW 7 Series	2023	Black	4000	500	Diesel	M	77000.00
26	BMW i3	2022	Silver	1500	170	Electric	A	35000.00
27	BMW X5	2021	Blue	3000	350	Petrol	A	52000.00
28	BMW 3 Series	2023	Red	2000	250	Diesel	M	41000.00
29	BMW M5	2022	White	4000	600	Petrol	A	82000.00